that it is often presented as. (This is reflected by the fact that it has taken me until Chapter 7 to even start discussing this topic.) On the other hand, if you have not worked hard to scope your project well or put the correct plan and resources in place and if you do not attempt to use good communications skills, then managing your project may soon become a complete nightmare.

To be able to control a project you need to be able to keep in mind what you should and can manage, understand what is going to trigger you to take management action and, following on from this, actually how you manage.

Key lesson

The degree of difficulty in managing a project is closely related to how well you have set the foundations (in terms of expectations, scope, plan and resources) in place.

What should you manage?

When you start out on your career as a project manager it is often easy to get bewildered by the number of things you have to do on a day-to-day basis. The plan is complicated. There are lots of people doing activities more or less under control, and more or less relevant to your project. There are various external stakeholders trying to influence the project. And finally there are huge numbers of things that are completely outside your control that you feel you must worry about. So what should you be managing?

❝ there are only five things that you are really responsible for managing ❞

In your role as a project manager there are only five things that you are really responsible for managing. These are difficult enough at times, but keep focused on these and your life will be much easier. Anything else you are involving yourself in should be because it has an impact on these five. They are:

1   **The time the project is taking to deliver** – this is typically measured as progress against your plan.

2   **The resources you are using to deliver** – again this is typically measured as resource expenditure (man/hours, money, etc.) against your original plans. This is generally harder than measuring progress and relies on a number of estimates. In addition, you must work to

ensure you continue to have access to the resources you need. This cannot be taken for granted. Often people focus totally on time and ignore or underemphasise resource usage – this can be because it is quite hard to monitor, and also because a less than fully scrupulous project manager can more easily get away with using more resource than with failing to deliver on time. Inefficient delivery is as much failure as late delivery.

3 The **quality of the work done and deliverables produced** – where the quality of a task is determined by assessing whether it is good enough to allow following tasks to be done adequately, and therefore allow the overall project's goals to be met. Quality of deliverables is an assessment of whether they are fit for the purpose intended. Additionally, you should look at quality in terms of the project process you are applying. This can be the hardest part of managing a project, though it is one often thought about least.

4 The scope **and outcome** – are you continuing to meet the scope of the project, and is this scope still relevant and linked to the desired outcome?

5 Your **customer** – are you still meeting their expectations?

One way to consider the activity of managing your project is to think about the goal of project management. The goal of project management is to convert a need, specified in terms of objectives and success criteria, into an achieved outcome. How this is done is by clarifying the objectives, translating the objectives into a scope, translating the scope into deliverable definitions, and then translating from the deliverable definitions into a project plan. These four steps are about preparing and planning a project. Having planned the project, the project plan is used to determine project team actions. The project team actions result in the production of deliverables. The deliverables fulfil the scope, and by fulfilling the scope the outcome is achieved. These next four steps are the delivery of the project. This overall process of going from needs through planning and preparation, into delivery and from that achieving the desired outcome is shown in Figure 7.1.

The project management process in Figure 7.1 goes through eight steps, which are numbered in the diagram. The project manager's management task is:

■ To translate fluently between steps 1 to 4 to result in a plan that will achieve the desired outcome.

■ On a day-to-day basis to manage the plan and ensure that the project team actions (in step 5) are those that are defined in the plan (created in step 4) and are done within time and cost constraints.

- However, the project manager also has to ensure that the activities performed will really lead through to produce the deliverables, fulfil the scope and achieve the desired outcome. Although the primary work is focused on ensuring there is a close linkage between the plan and the project team actions (i.e. between steps 4 and 5 shown in the figure), there also needs to be alignment between the planned deliverables and those developed (steps 3 and 6), between the defined scope and the fulfilled scope (steps 2 and 7), and between the objectives/success criteria and the outcome (steps 1 and 8)

One way of thinking about the project manager is to compare him or her to *both* the ship's navigator and its helmsman. Acting as the helmsman the project manager must steer the ship on a day-to-day basis where the plan says. But acting as the navigator the project manager also has to ensure that the daily movements of the ship are periodically confirmed to be taking the ship towards the expected destination. To get to the right destination you must make continuous comparisons between plan and activity, but don't forget also to periodically check alignment between where you want to get to and your current location and direction.

How do you know when to take management action?

A very large part of project management theory, processes and tools is given over to providing the project manager with mechanisms to deliver information to know when management action is required. These are described in more detail in Chapters 2 and 10, but in summary the key tools a project manager has are as follows.

- Formal progress reporting and progress monitoring:
  - Progress reports and other formal inputs from the project team. (One good tool that is frequently not used to its full advantage is timesheets for team members.) Do not forget that progress needs to measure what has been produced relative to time spent, not simply how much time has been spent.
  - Ongoing planning and monitoring – and there are a variety of tools available to help this, including mapping progress against plan and using tools like earned value analysis. Remember that such monitoring is not simply a measure of how much time has been used, how many tasks done, and how much resource used. It is a measure of how much has been used relative to where you expected to be.
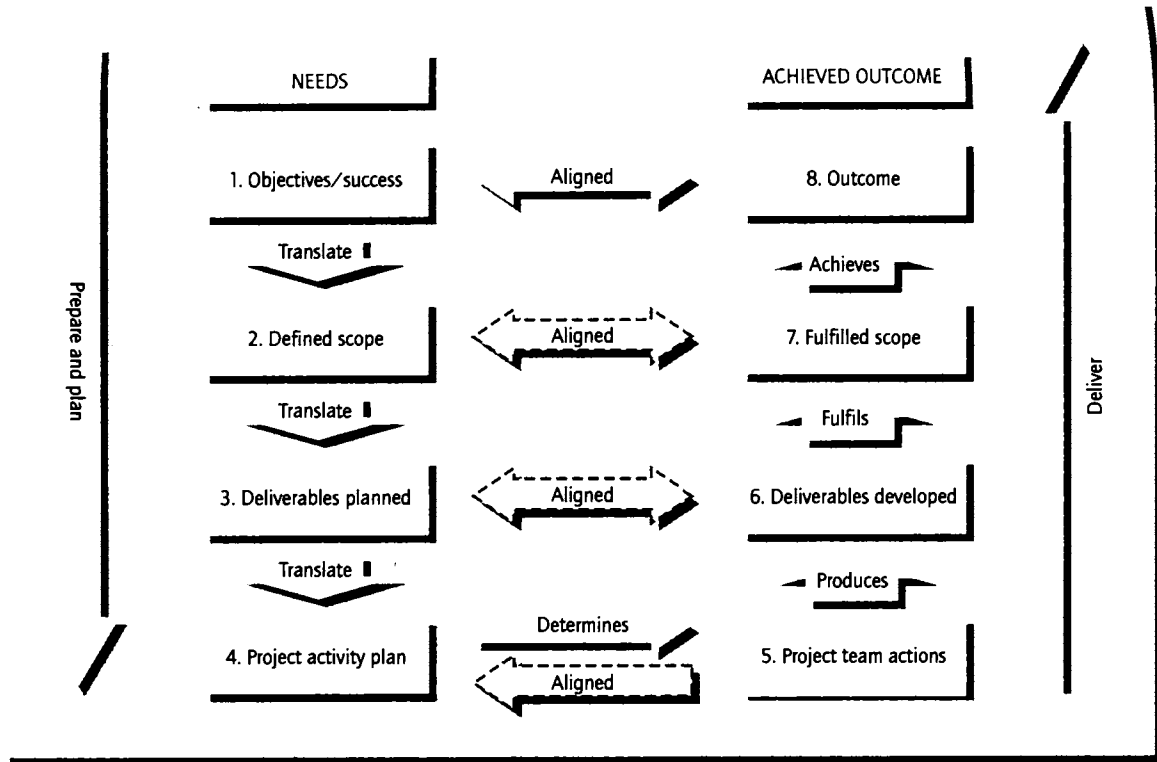
NEEDS   ACHIEVED OUTCOME

1. Objectives/success   Aligned   8. Outcome

Translate   Achieves

2. Defined scope   Aligned   7. Fulfilled scope

Translate   Fulfils

3. Deliverables planned   Aligned   6. Deliverables developed

Translate   Produces

                    Determines
4. Project activity plan   5. Project team actions
                    Aligned

Prepare and plan

Deliver

figure 7.1 The project management process

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- – Budget and spend tracking – both from the project itself and from any financial systems supporting you.
- – Project team meetings – the team's own assessment of progress.
- ■ Use and assessment of outputs from project management tools, e.g.:
  - – Risk management
  - – Issue management
  - – Assumption management
  - – Change control.
- ■ Quality control and quality audits of deliverables – both formal and informal. (This is normally not regarded as a project management tool as it is specific to the content of the project. My view is that as a project manager you need to know how quality of deliverables is going to be assessed, otherwise how can you know if the project is delivering what it is meant to be? For some types of deliverable such as software there are well-described processes and approaches for testing them. For many other deliverables there is no defined standard methodology.)
- ■ Informal day-to-day conversations and communications. No matter how good formal information flows are, do not forget how powerful it can be to keep your ear to the ground.
- ■ Direct feedback from the customer.

All of these tools provide different sets of information to a project manager, and as a project manager you must be aware of the range of tools in your armoury and use them appropriately. The combination of tools you use to manage the project is known as the *control system*. A good control system will measure activity progress (have I completed the tasks I expected to in the planned time and budget?), creation of deliverables (are the tasks delivering the output I expected?), and outcome or benefits (will the expected benefits arise?).

With all of these tools the depth and quality to which you use them should be a function of the situation you are in. They are simply tools and not the end result. When you need to hammer a nail into a piece of wood you will use a cheap hammer; when you need to break up several tons of concrete you need at least a pneumatic drill and possibly something bigger. So it is with project management tools. Their effectiveness should be measured in only one way – do they have the optimal balance of being as simple as possible, yet giving you the best information with which to make management decisions in the context in which you are

working? When you are setting up your project you must determine which tools you will need and to what degree.

The decision to take action then comes down to your ability to structure the output from these tools to give you worthwhile information, your analysis of the information and your judgement of what action is required. Look for two things: firstly specific individual problems or issues and secondly trends. For example, a one-day slip from one team member in one team in a large programme is probably not relevant to the project manager, but a one-week or one-month slip is. On the other hand, a continuous trend of one-day slippages does need to be managed.

How should you manage?

If you know what to manage, the next question you need to determine is how should you manage? This is somewhat more difficult, but again if you have the fundamentals in place it is where all your hard work comes together, and this is where the successful project manager makes life look easy and the less able project manager struggles. This is also when a balance of analytical skills and a touch of creativity really come together. To use an old cliché, this is where the rubber hits the road.

Again, this is not intellectually complex if we think in terms of the actions a project manager can actually take. No matter how senior, how experienced and how clever a project manager you are, there is a very limited set of actions you can take in response to a need to manage something. The management levers you have are:

- **Change the way the team are working** – this may be as simple as encouraging them to work a little harder, asking them to work more time on your project, reprioritising or refocusing effort, or looking at the way they are actually working.

- **Change resources on a project** – if a project is running late, or occasionally if it is ahead of schedule, you can attempt to change the resource level – or release resources from the project. The basic parameters are to get either more resource or different resources. A more subtle but equally important thing to do when you need resources is to have the priority of the project changed to make accessing resources easier.

- **Change the scope of a project** – a project that is suffering can be made more likely to deliver by reducing the scope and focusing on a smaller